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USGS and U.S. Air Force Space Command Sign MOU

On 18 January 2005, USGS Director Charles G. Groat and U.S. Air Force Lieutenant General Daniel P. Leaf signed a Memorandum of Understanding (MOU) that establishes policies and administrative procedures that will facilitate cooperation and coordination between the U.S. Air Force Space Command (AFSPC) and the USGS in development of regional geographic information data sets to share mapping information between ASFPC military installations and various city, county, state, tribal, and Federal agencies. The MOU outlines specific responsibilities for the USGS to include sharing data using ***The National Map*** architecture, supplying hazard data in cooperation with the Federal Emergency Management Agency, serving as a broker for civilian agency data, providing personnel assignments to AFSPC, and ensuring geospatial data will be interoperable with the Spatial Data Standards for Facilities, Infrastructure and Environment. A full copy of the MOU is accessible at, http://dodesp.er.usgs.gov/mou-moa/AFSPC-USGS_MOU.pdf. For specific information about this MOU please contact Dr. James T. O'Kelley (jtokelley@usgs.gov).

USGS and DoD Investigate Grassland Birds in Texas

Photograph of the rare Sprague's Pippit in the Texas grasslands (Glenn Perrigo, Texas A&M)

More than any other assemblage of birds, grassland species have shown dramatic declines in numbers during the past several decades. In addition, native habitats that grassland birds prefer have been reduced in size and quality to mere fragments of what once existed. Much of the loss is attributed to conversion of grasslands into cropland, livestock overgrazing, fire suppression, and subsequent brush encroachment. It is estimated that less than 1 percent of Texas coastal prairies remains in relatively pristine condition.

US Navy facilities in southern Texas include an abundance of grasslands; native habitat that is rapidly disappearing elsewhere. Because of their remoteness and compatible land use by

the military, these lands can function as natural resource preserves. Because of this valuable land trust and interest in the conservation of grassland ecosystems, the US Navy, through the **Department of Defense Legacy Resource Management Program**, partnered with the USGS to examine bird species richness and abundance in native- and exotic grass-dominated prairies of southern Texas.

The USGS Columbia Environmental Research Center's Texas Gulf Coast Field Research Station in Corpus Christi, Texas, conducted grassland bird surveys at four US Navy facilities in southern Texas. Research shows property owned by the US Navy contains excellent examples of undisturbed, native coastal and inland prairies with relatively high plant diversity. In addition, there are exotic grasslands that are typical of the widespread invasion of exotic grasses throughout southern Texas.

Within all habitat types (grasslands, riparian zones, Tamaulipan thorn-scrub, estuarine) on property owned by the US Navy, a total of 170 bird species were encountered. Twenty-four of these species are identified in the Partners in Flight North American Landbird Conservation Plan as Species of Continental Importance, with 8 of 24 from the Watch List Species and 16 of 24 from the Stewardship Species list.

The presence of these high-priority species provides the US Navy with the opportunity to demonstrate its commitment to the conservation of migratory birds and the rich regional avifauna of southern Texas. Results of these studies indicate the need for conservation planning to sustain native grassland habitats, monitor at-risk species, and control exotic grass species. For further information on this project, please contact Marc C. Woodin (marc_woodin@usgs.gov) and online at http://www.cerc.usgs.gov/FRS_Webs/Gulf_Coast/lanwr.htm .

USGS Publishes Ground-Water Flow Report for Ft. Leavenworth, KS

On 11 February 2005, USGS published a report describing ground-water flow direction and time of travel to the Ft. Leavenworth water supply well fields. The presence of organic compounds, fuel compounds, and heavy metals in ground water at three sites near the Ft. Leavenworth well field have raised concerns about the potential impact to the available drinking water supply. Results from ground-water flow simulations and experiments indicate ground water from three contaminated sites is eventually captured by the well field for all well pumping/ river stage scenarios.

The recently released report "Simulation of Ground-Water Flow, Contributing Recharge Areas, and Ground-water Travel Time in the Missouri River Alluvial Aquifer near Ft. Leavenworth, Kansas", USGS Scientific Investigations Report 2004-5215, provides a detailed analysis of the study area, model calibration procedure, and simulation results for this important water supply. For additional information on this study and flow in the Missouri River alluvium, please contact Brian P. Kelly (bkelly@usgs.gov)

USGS and Ft. Jackson Discuss Science Partnership

The USGS and the Ft. Jackson Environmental and Natural Resources Division staff met to discuss ways the two could partner to address biological and water resource related issues at the Ft. Jackson installation. Ft. Jackson has several science needs including a baseline water study of the installation, characterization of water quality draining impact areas, a baseline evaluation of wetlands, and an invasive and imperiled species characterization. This meeting was successful in facilitating future discussion between USGS and Ft. Jackson scientists on areas of mutual concern. For further information on this meeting, please contact Jim Preacher (jpreacher@usgs.gov).

USGS Releases Report on Soil and Water Contamination from the Idaho Army National Guard Orchard Training Area, Idaho

A report recently released by the U.S. Geological Survey (USGS), summarizes characteristics, locations, and concentrations of soil and water quality at the Idaho Army National Guard Orchard Training Area (OTA) in southwestern Idaho. Between June 2002 and April 2003, a total of 114 soil, surface-water, ground-water, precipitation, and dust samples were collected from 68 sites in and near the OTA. Soil and water samples were analyzed for concentrations of selected total and dissolved trace metals, major ions, nutrients, explosives, semivolatile organics, and petroleum hydrocarbons. The report "Assessment of Soil and Water Contaminants from Selected Locations in and near the Idaho Army National Guard Orchard Training Area, Ada, County, Idaho, 2001-2003" by D. J. Parliman, USGS SIR 2004-5207, is part of a longer-term assessment of availability of environmental data for the OTA. For additional information on this project, please contact either Kathy Peter (kdpeter@usgs.gov) or Deb Parliman (parliman@usgs.gov).

SOLDGR Marches On!

The **S**trategic **O**n-**L**ine **D**efense **G**eography **R**epository has had many additions and changes occur during the past few months. **SOLDGR** is now a global extent map viewer with data layers showing the Global Seismic Network (GSN) and various data layers for Mexico, Africa, and Afghanistan. To add value, the GSN layer is linked to a metadata file that provides direct access to real-time heliographs for most of the monitoring sites around the globe.

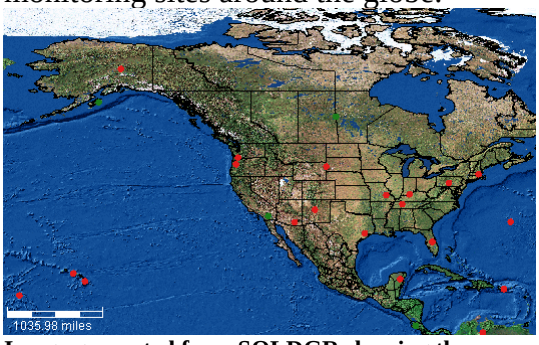

Image generated from SOLDGR showing the location of some of the stations in the Global Seismic Network.

Other useful layers that have direct application to the environmental and engineering community at the

installation level include the real-time NEXRAD radar, the National Geochemical Dataset, the Q3 FEMA flood data (100-year elevations), 1/3 arc-second digital elevation model, Shuttle Radar Topography Mission data, the impervious land cover layer, U.S. Army Reserve 90th Regional Readiness Command (RRC) facility locations, historic imagery for the 90th RRC, physiographic provinces, climate zones, selected IKONOS imagery, 2-foot resolution black and white imagery for North Carolina, and the list goes on depending on where you are located on the map. **SOLDGR** continues to grow as new data become available online and as USGS enters into partnerships with other Federal, State, and local agencies.

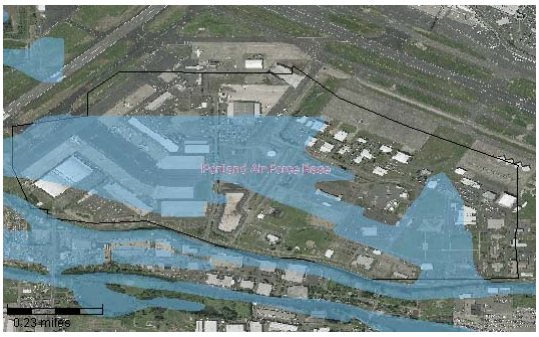

Image generated from SOLDGR showing areas of Portland Air Force Base that would be affected during a 100-year flood.

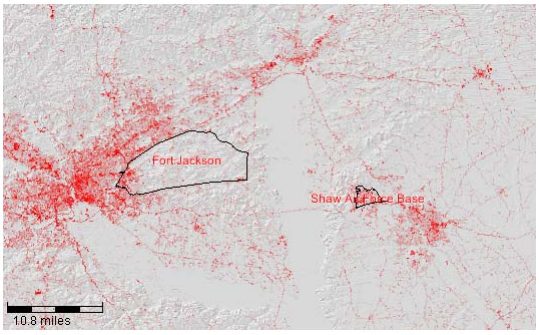

Image generated from SOLDGR showing impervious surfaces near Ft. Jackson and Shaw Air Force Base. Impervious surfaces show the direction from which encroachment is occurring near these military installations.

To learn more about the **SOLDGR** effort, please go to http://dodesp.er.usgs.gov/soldgr.html or contact either Danny Miller (dlmiller@usgs.gov) or Emitt Witt (ecwitt@usgs.gov). **SOLDGR** requires the Java Runtime Environment be installed on your computer.

USGS Briefs Fifth Army on Central U.S. Earthquakes

On 12 December 2004, Eugene Schweig of the USGS briefed the Joint Task Force for Consequence Management West at Lackland Air Force Base, San Antonio, Texas. As part of a major New Madrid earthquake exercise by the Fifth Army, Schweig provided information on central U.S. earthquake hazards and ongoing research. The Joint Task Force supports FEMA in disaster response west of the Mississippi River. The exercise was held from November 30 to December 9, 2004. For more information on this effort, please contact Eugene Schweig at 901-678-4974 (schweig@usgs.gov).

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